

● PRINTER RUSH ●

(PTO ASSISTANCE)

| | | | | | |
|---------------|-------------------|------------|--------------------|-----------------------------|-----------------|
| Application : | <u>10/698,579</u> | Examiner : | <u>Price</u> | GAU : | <u>1621</u> |
| From : | <u>MR</u> | Location : | <u>IDS</u> FMF FDC | Date : | <u>10-14-05</u> |
| Tracking # : | | | <u>06102555</u> | Week Date : <u>05-09-05</u> | |

| DOC CODE | DOC DATE | MISCELLANEOUS |
|--|-----------------|--|
| <input type="checkbox"/> 1449 | | <input type="checkbox"/> Continuing Data |
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| <input type="checkbox"/> OATH | | |
| <input type="checkbox"/> 312 | | |
| <input checked="" type="checkbox"/> SPEC | <u>10.31.03</u> | |

[RUSH] MESSAGE: Table 11 on specification pg. no. 51 (10-31-03)
has some illegible data same as table 21 on
pg. 75.
Please resolve.
Thank you,
MR

[XRUSH] RESPONSE: _____
See misc comm
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FACSIMILE COVER PAGE

TO: Rori Burch
USPTO Publishing Division

FAX NO: (703) 746-6830

FROM: Susan Schwarz
Assistant to Robert C. Hyta

NO. OF PAGES: 5, including cover

DATE: November 7, 2005

Application No.: 10/698,579

Atty. Docket No.: PC3-058

SUBJECT/MESSAGE:

Ms. Burch,

Accompanying this fax is copy of office communication dated 10/28/05, along with our best copies of pages 51 and 75 of the Application. If these copies are not of sufficient quality, we would be happy to scan the copies and email them to you. If so desired, please advise and provide us with your email address.

Thank you,
Susan Schwarz
sschwarz@wellsstjohn.com

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/698,579 | 10/31/2003 | Yuichi Ikubo | PC3-058 | 1655 |
| 21567 | 7590 | 10/28/2005 | EXAMINER | |
| WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201 | | | PRICE, ELVIS O | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1621 | |

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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PTO-90C (Rev. 10/03)



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NOTICE TO FILE CORRECTED APPLICATION PAPERS

Notice of Allowance Mailed

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- Specification---pages 51 and 75 contain illegible data in table.

APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.

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GRLK-003

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| TABLE 11. C ₃ Cl ₃ F ₆ to CFC-217ba with Different Catalyst Systems | | | | | | | | | | |
|--|----------------|--------------------|--|----------------------|--------------------------|--------|--------|---------|-----------|-----------|
| Catalyst | RUN CONDITIONS | | | | RESULTS | | | | | |
| | Temp (C) | Contact Time (sec) | Mole Ratio C ₃ Cl ₃ F ₆ | Conversion CFC-217ba | Selectivity to CFC-217ba | CFC-13 | CF-218 | CFC-115 | CFC-217ba | % GC Area |
| NiCl ₂ /ZnCl ₂ /AC* | 300 | 27.7 | 3.2 | 20.1 | 1.7 | 0.08 | 0.01 | 0.04 | 0.34 | 1.01 |
| | 400 | 29.6 | 3 | 46.5 | 8.6 | 18.25 | 3.81 | 0.16 | 3.97 | 6.81 |
| | 450 | 18.9 | 5.3 | 43.9 | 85 | 0.64 | 0.01 | 0.07 | 8.72 | 0.86 |
| | 400 | 19.7 | 5.7 | 42.4 | 64.5 | 0.34 | 0.03 | 0.22 | 33.23 | 0.61 |
| Activated Carbon | 450 | 18.4 | 5.3 | 28.7 | 77.1 | 0.60 | 0.03 | 0.05 | 17.02 | 0.50 |
| | 480 | 10.1 | 5 | 56.6 | 90.7 | 0.81 | 0.38 | 0.36 | 51.23 | 0.89 |
| | 300 | 10.4 | 6.5 | 21.0 | 3.3 | 0.01 | 0.00 | 0.01 | 0.69 | 0.64 |
| | 400 | 19.1 | 4.2 | 21.8 | 51.6 | 0.13 | 0.01 | 0.13 | 11.22 | 0.67 |
| ZnCl ₂ /AC | 450 | 9.2 | 5.2 | 14.6 | 55.7 | 0.81 | 0.00 | 0.09 | 6.67 | 0.61 |
| | 480 | 19.6 | 5 | 73.3 | 91.6 | 1.24 | 0.39 | 0.69 | 59.86 | 0.68 |
| | 400 | 11.2 | 6.2 | 87.6 | 86.7 | 0.79 | 3.74 | 0.17 | 70.89 | 0.35 |
| | 450 | 10.3 | 6.2 | 99.9 | 35.5 | 6.88 | 6.69 | 1.92 | 64.62 | 6.88 |
| 2% FeCl ₃ /AC | 300 | 10.6 | 6.5 | 15.3 | 5.7 | 0.02 | 0.00 | 0.00 | 0.90 | 0.49 |
| | 400 | 19.5 | 4.2 | 38.9 | 74.3 | 0.16 | 0.02 | 0.10 | 16.08 | 0.52 |
| | 450 | 19.5 | 4 | 48.4 | 86.2 | 0.61 | 0.16 | 0.29 | 35.58 | 0.60 |
| | 480 | 19.7 | 5 | 89.5 | 88.4 | 1.46 | 0.97 | 0.76 | 71.05 | 0.88 |
| CrCl ₃ /AC | 300 | 10.5 | 6.5 | 52.1 | 5 | 0.05 | 0.00 | 0.04 | 2.05 | 1.63 |
| | 400 | 20.0 | 5.7 | 34.5 | 71.2 | 0.44 | 0.04 | 0.42 | 29.85 | 3.27 |
| | 450 | 18.9 | 4 | 66.4 | 84.6 | 0.60 | 0.13 | 0.34 | 39.81 | 1.53 |
| | 480 | 18.8 | 3.8 | 74.2 | 84.4 | 1.81 | 0.47 | 0.77 | 58.97 | 1.27 |
| KF / AC | 400 | 19.6 | 4.2 | 19.6 | 34.6 | 0.23 | 0.01 | 0.09 | 15.10 | 0.21 |
| | 450 | 19.6 | 4 | 84.3 | 63.7 | 1.46 | 0.40 | 0.46 | 77.18 | 0.55 |
| | 480 | 19.4 | 5 | 79.2 | 68.4 | 1.94 | 1.56 | 0.66 | 75.04 | 0.87 |
| | 400 | 16.1 | 2.5 | 35.2 | 36.75 | 3.46 | 0.07 | 2.39 | 12.93 | n/d |
| Chrome Gel @** | 480 | 18.98 | 9.5 | 85.94 | 84.2 | n/d | 4.07 | 0.20 | 72.36 | n/d |
| | | | | | | | | | | |

-51-

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Table 21. Selective Chlorination of HFC-227ea

| | | | | | | |
|---|-------------------------|------------------|-------------------|------------|-------------|---------------------|
| Starting Material % Composition: CFC-227ea 99.8678 CFC-227ca 0.0749 | | | | | | |
| Reaction Conditions | | Results (%) | | | | |
| Activated Carbon | Reactor Temperature (C) | Contact Time (s) | Cl2/HFC-227 Molar | Conversion | Selectivity | CFC-227ca CFC-217ca |
| | 250 | 13.3 | 2.01 | 24.49 | 98.85 | 0.0628 0.0219 |
| | 300 | 12.8 | 1.81 | 54.46 | 98.91 | 0.064 0.0223 |
| | 325 | 11.9 | 1.48 | 48.15 | 96.78 | 0.0744 0.0217 |
| | 325 | 21.9 | 2.69 | 98.91 | n/d* | 0.0767 0.0281 |
| | 350 | 13.2 | 1.97 | 65.51 | 96.2 | 0.0548 0.0751 |
| | 325 | 22.3 | 2.91 | 98.14 | 98.25 | 0.0063 0.0055 |
| | 200 | 38.5 | 0.16 | 3.23 | 71.21 | 0.0981 0.0211 |
| | 300 | 21.8 | 0.55 | 44.81 | 96.51 | 0.0701 0.0211 |
| | *n/d = non-detectable | | | | | |
| Starting Material % Composition: CFC-227ea 99.5013 CFC-227ca 0.1411 | | | | | | |
| Reaction Conditions | | Results (%) | | | | |
| Activated Carbon | Reactor Temperature (C) | Contact Time (s) | Cl2/HFC-227 Molar | Conversion | Selectivity | CFC-227ca CFC-217ca |
| | 300 | 16.3 | 0.174692697 | 18.3 | 96.8 | 0.1255 0.0113 |
| | 300 | 15.8 | 0.34 | 46.8 | 98.6 | 0.0899 0.0414 |
| | 300 | 14.8 | 0.328435145 | 55.6 | 98.5 | 0.0829 0.0531 |
| | 300 | 26.9 | 0.84 | 79.2 | 98.7 | 0.0341 0.093 |

-75-

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